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(54) Title: METHOD FOR PRODUCTION OF ALKYL ESTERS

(57) Abstract: A method for production of alkyl esters from a mixture of glycerides and free fatty acids, originating primarily from grease trap waste, is provided. The mixture is first solvated in a low boiling point alcohol and then the pH of the solution is adjusted to about 1 to 2 by addition of an acid to effect acid-catalysed alkyl esterification. The acidic solution is then treated with a concentrated alkoxide solution to raise the pH of the solution about pH12 to effect base-catalysed transesterification of glycerides contained in the mixture. The resulting solution is then treated with an acid to decrease the pH of the solution to about 2 to effect acid-catalysed esterification of residual saponified by-products. The alcohol solvent is removed by distillation or other suitable techniques and the resulting alkyl esters are separated from any remaining residues and neutralised of residual acids.